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ABSTRACT

A study examined educational and pedagogical strategies industry trainers use for trainee learning and their methods of delivery, focusing on pedagogical practices using literacy and numeracy competencies in implementing training on the work site. It drew on case studies from five vocational education and training sites, looking at the industry, training for the industry onsite, and training issues espoused by trainers. Findings indicated trainers responding to the National Training Framework reported on the strength of training industry sites; engagement with the Australian Quality Training Framework enabled understanding Training Packages and their use as a framework for delivery, assessment, and accreditation of industry training; Key Competencies must be revisited as critical underpinning skills for industry training; workplace trainers valued their ability to network with professional colleagues and industry partners to enhance delivery of quality training; professional development opportunities were necessary in delivery of quality training; literacy and numeracy skills enabled the teaching and learning process in the workplace; higher order literacy skills were important in a climate of lifelong learning; and language's central role in industry training had pedagogic implications for training workplace trainers. Three key themes emerged to address to meet education and training needs of workplace trainers: balance industry-based training (location) with productivity constraints (time) and professional development (knowledge practices) opportunities. (36 references) (YLB)

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Talking about training.

Literacy and numeracy training practices in industry: a comparative study across five industries.

Ruth Trenerry

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An investigation by the South Australian Centre

Adult Literacy and Numeracy Australian Research Consortium (ALNARC)

Centre for Studies in Literacy, Policy and Learning Cultures
University of South Australia

ALNARC National Research Program 2001-2002

June 2002

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List of Acronyms

ALNARC	Adult Literacy and Numeracy Australian Research Consortium
ANTA	Australian National Training Authority
AQF	Australian Qualifications Framework
AQTF	Australian Quality Training Framework
AWT	Assessment and Workplace Trainer
CBT	Competency Based Training
DEST	Department of Education Science and Technology
ESL	English as a Second Language
GST	Goods and Services Tax
ITAB	Industry Training Advisory Board
MCEETYA	Ministerial Committee for Employment, Education & Training & Youth Affairs
NRS	National Reporting System
NTF	National Training Framework
OH&S	Occupational Health and Safety
RCC	Recognition of Current Competency
RPL	Recognition of Prior Learning
RTO	Registered Training Authority
TAFE	Technical and Further Education
TP	Training Package
VET	Vocational Education and Training

Executive Summary

Quality industry training in Australia at the present time has the focused attention of both government and industry (Reframing the Future 2001:3). Industry training is the business of the vocational education and training (VET) sector and it operates in a de-regulated, but nationally coordinated market. Industry trainers deliver (and assess) training relevant for their particular industry context.

Recent research (Simons 2001; Harris et al 2000) highlights the role of the workplace trainer as a change agent where 'deep understanding of the full extent of what was required to bring about system-wide change in an *industry led* training system, where achieving the stated goals of flexibility and responsiveness requires unique responses to the needs of each industry area.' (Simons 2001:214).

The purpose of this report is to add another voice to the exploration of the 'work' of industry trainers and to examine and interpret their ways of working with (and against) the national training agenda.

The research is designed to understand the current work of industry trainers in both their coordinating and teaching roles. This understanding will, it is hoped, allow insights into the teaching and learning dynamic in vocational training today. The broad aim of the study is to examine the educational and pedagogical strategies that trainers use for trainee learning and their methods of delivery. The research focus is an investigation into the pedagogical practices utilizing literacy and numeracy competencies in the implimentation of training on the work site.

This study draws upon case studies from five vocational education and training sites, looking at the industry, training for the industry on the research site, issues for training, espoused by the trainers in the study.

Findings from the study are these, that:

1. As trainers respond to the National Training Framework they report on the strength of training located within industry sites;
2. Engagement with the AQTF has enabled an understanding of Training Packages and their use as a framework for delivery, assessment and accreditation of industry training;
3. There is a need to revisit the Key Competencies as critical underpinning skills for industry training;
4. Workplace trainers place value on their ability to network with professional colleagues and industry partners as a way to enhance the delivery of quality training;
5. Professional development opportunities are a necessary ingredient in the delivery of quality training;
6. Literacy and numeracy skills enable the teaching and learning process in the workplace;
7. Higher order literacy skills are important in a climate of lifelong learning;
8. The central role of language in industry training has pedagogic implications for training workplace trainers.

Three key themes emerge from this study and need to be addressed if the education and training needs of workplace trainers are to be met. These are that it is necessary to balance industry based training **(location)**, with productivity constraints **(time)** and professional development **(knowledge practices)** opportunities.

Introduction

Quality industry training in Australia at the present time has the focused attention of both government and industry (Reframing the Future 2001:3). Industry training is the business of the vocational education and training (VET) sector and it operates in a de-regulated, but nationally coordinated market. The goal of this training is to equip the workforce with the skills, knowledge and understandings to meet the demands of a post-industrial and global economy. Industry trainers deliver (and assess) training relevant for their particular industry context. The work of the vocational trainer is guided by the decade and a half of industry training reforms that are today manifest in the National Training Framework (ANTA 1996). Recent research (Simons 2001, Harris et al 2000) highlights the role of the workplace trainer as a change agent where 'deep understanding of the full extent of what was required to bring about system-wide change in an *industry led* training system, where achieving the stated goals of flexibility and responsiveness requires unique responses to the needs of each industry area.' (Simons 2001:214).

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A number of questions guide the study:

- What is the 'work' of workplace?
- What practices do instructors use to promote learning in instructional programs for work?
- How do trainers create learning environments through teaching and learning activities? What formal and informal (organized and ad hoc) training repertoires and negotiations with stakeholders regarding mechanisms for delivery are utilized in training?
- What judgments do trainers make to facilitate effective learning for trainees in their training programs?
- How do trainers understand the terms 'literacy' and 'numeracy'?
- How do trainers talk about their work as trainers in this climate of packaged training, standards and compliance?

This study draws upon case study data from five vocational education and training organizations. The story of each site is developed in case study format that looks at the industry, training for the industry on the research site and issues for training, espoused by the trainers in the study. This is followed by a discussion of the data organized around the topics; the training culture, teaching and learning, literacy and numeracy and assessment.

Research Design

Training organizations providing workplace training for trainees/workers in five separate industries became the research sites for the case studies in this report. The research study was designed to build a complex holistic picture (Cresswell 1998: 61-64) of the culture of training and specific training practices from the data collection sites. The study uses qualitative and naturalistic research methods (Cresswell 1998, Denzin & Lincoln 1994) with data analysis following the interpretive model (Lincoln & Guba 1985). Critical inquiry methods espoused by Mezirow (Mezirow et al. 1990) and discussed by Carr and Kemmis (1986) provide another layer to the data analysis. Case study research methodology was chosen as one way of revealing individual training situations, and of providing a means to contrast and compare training processes on the designated research sites. A literature review, data from the research field, and analysis of key documents, delivered comprehensive data drawing from multiple perspectives.

Five industry-training sites were selectedfor data collection, and they then, have become the case studies presented in this report. Each case offers a snapshot of training as the research informants (trainers and training coordinators) 'talk' about training for their industry and in their training organizations. The sites are all located in South Australia, and deliver training in and for the following industries:

1 Funeral services

2 A fast food franchise

3 The wine industry

4 Office management and business training

5 The seafood industry (including a training organization and a work-site).

Sites for data collection were determined through meetings with the project officers from the three Industry Training Advisory Bodies (ITAB's) organizations that take a leading role in the structure and administration of training for their industry sector.

These six sites represent three Industry Training Advisory Bodies:

1. South Australian Aquaculture Council Inc
2. South Australia Wholesale, Retail & Personal Services ITAB
3. Agriculture & Horticulture Training Council of SA Inc

In each of three industry groups, Funerals, Fast food and The wine industry, interviews were conducted with one training coordinator/trainer. Two research informants were present at the Office management and business training interview, a traineeship coordinator and a trainer. In the Seafood industry interviews were conducted on two sites with the training coordinator at one and a focus group consisting of two trainees, one work site supervisor, a work experience student and the industry employer, at the other. Each interview was timed at between one hour and an hour and a half with the prepared research questions (Appendix 1) guiding the interview conversation. All sites were provided with a copy of the questions before the visit.

Interviews were recorded on audiotape with transcriptions of each made. Research questions were grouped under the following categories:

1. Trainer's work
2. Workplace learning and the culture of training within the industry/RTO
3. Teaching strategies in the delivery of workplace training
4. The role of literacy and numeracy (L&N) in training
5. Assessment practices
6. Current issues for training.

Additional data collection was to be collected through trainers completing a questionnaire detailing aspects of their preparation and delivery before and after scheduled teaching incidents. The following categories were to be included:

- Evidence of learner's mastery of the task (written/spoken/demonstration)
- Learner feedback
- Planning & preparation
- Using industry knowledge
- Resources used
- Teaching techniques watching/doing/describing/using theory/other
- Assessment strategies.

However due to time constraints, trainers were not able to complete this questionnaire. Instead these categories were used to analyse the interview transcripts.

Data collection also included an examination of documents and other resources relevant to industry training on the fives sites. Materials available through The Australian National Training Authority (ANTA) and The Department of Education Science and Technology (DEST), which detail and describe arrangements for the vocational education and training system at this time were also used in this inquiry.

Contextualising vocational education and training

The national training strategy, 'A bridge to the future: Australia's National Strategy for Vocational Education and Training 1998 - 2003' (ANTA) provides both a broad vision and long term objectives for the vocational education and training sector in Australia. This vision is to:

'Ensure that the skills of the Australian labour force are sufficient to support internationally competitive commerce and industry and to provide individual with opportunities to optimize their potential' (ANTA website: preface)

Implementation of this national strategy has a suite of priorities for the year 2002. These are:

- A quality national system that provides value for money
- Industry commitment to skill development
- Individuals as learners
- VET professionalism
- Support for regional development.

The findings from this study will help to provide the rationale for implementing these priorities. Central to the study is the question, in the context of the national agenda, of how training is managed on the research sites.

Vocational education and training implementation is effected through the National Training Framework (NTF 1996) and its two key structures, national industry training packages (1997) and the Australian Quality Training Framework (AQTF 2001). Under the NTF registered training organizations (RTO's) can provide training and assessment services and issue nationally recognized qualifications. Qualifications are defined by levels (Certificate I to post-graduate) and described in the Australian Qualifications Framework (AQF).

The purpose of vocational education and training (VET) is to develop and recognize the skills or competencies of learners. Teaching and learning is located for the most part in the workplace, with some competencies delivered off the work site in training rooms. Work-based learners will be trainees, apprentices or existing workers. Other learners will be unemployed people acquiring competencies in pre-employment programs (self funded and assisted job-seekers) or school students studying VET modules in a school setting.

Registered training organizations provide both teaching and learning and assessment services. There are a range of RTO providers: TAFE institutes, private training organizations, universities, schools and adult and community education providers.

Industry training boards (ITAB's) were commissioned (MCEETYA 1996) to develop training packages using ministerial guidelines in their particular industry grouping. Training packages are written in competency-based format. They consist of a number of units that are relevant to work tasks in a particular industry. They will also contain generic competencies to meet, for instance, compliance standards (i.e. health and safety, OH&S) and workplace and training communication skills. Packaged units of competence constitute qualifications at specified AQF levels. Assessment criteria are included in the training packages, and the non-endorsed component for most industries will be available in the form of learner guides and various resources as well as professional development advice to assist in the teaching and learning process. The first training packages were available in 1997 while other industry groups are

still developing their packages. The review process for each training package occurs every three years.

The AQTF (ANTA 2001) functions to provide a system to 'improve the quality of training and assessment services in vocational education and training' (Implementing the AQTF, ANTA website). This is achieved through two sets of standards (for RTO's and State and Territory registering and course accrediting bodies) that are both internally and externally audited by participating training providers.

Introducing and maintaining equity principles are a stated goal of VET (ANTA web page). Five groups of those in training and or potential trainees have been identified as needing structural assistance; people with disabilities, indigenous people, women, people from a non-English speaking background and people in remote and rural areas. Two programs exist to focus support for people with a disability and for indigenous people. These are Bridging Pathways and Partners in a Learning Culture (ANTA website http://www.anta.ov.au/dapEquity.asp)

Another arm of VET programs is that of research. Research is carried out and evaluation, statistical and other data provided by the National Centre for Vocational Education Research (NCVER). Apart from this body key research centres are sited in various Universities (University of Technology, Sydney RCVET & Griffith University, Queensland Centre for Learning and Work Research). This research report, with its focus on the management of learning and literacy and numeracy practices in learning, builds upon the work of the six state based University research centres known as the Adult Literacy and Numeracy Australian Research Consortium, (ALNARC).

The Case Studies

Training organizations providing workplace training for trainees/workers in five separate industries are the research sites for this report. The cases studies explore aspects of training and training cultures across industries as varied as personal services, retail operations, business services, viticulture, aquaculture and seafood.

On each training site trainers facilitating the delivery of workplace training programs were interviewed as part of the data collection process. On each site one trainer was interviewed using a guided interview format with a set of specific research questions (Appendix 1). There were two exceptions to this procedure, in one case a training coordinator and trainer were interviewed in tandem, while in another additional data was collected in the seafood industry from trainees working on a fish farm. These trainees were interviewed using the same guided interview format as for the previous five industry training sites.

This research project is designed to identify the broad (VET) and local (site and industry) understandings of one group of industry training coordinators and trainers. The coordination of industry training, response to teaching and learning in their industry, and the organization of training episodes are investigated in the study. Of particular interest is how literate and numerate practices (as part of a repertoire of social skills that individuals bring into a training environment) transfer into the context of work-based teaching and learning as constructed under the National Training Framework (ANTA 1996). A further interest for this project is how trainers understand the terms literacy and numeracy as evidenced by their talk about the literate and numerate practices integral to the learning process.

In each of the five studies a short description of the **industry** is provided, including some information about the likely jobs that are part of an individual worker's job description or are available as modular training in the industry. The **training** is then detailed including trainer qualifications, training units offered by the organization with some discussion of the process of collaboration with RTO processes as established by VET. Finally, **Industry training issues** are discussed. This data was collected to gain a snapshot of the strengths and weaknesses of current training from the trainers' perspective.

The five case studies

1 Funeral services

The industry

This industry provides a range of services for clients from the time they first contact the funeral organization to arrange a funeral, to the completion of details after the funeral itself is over. Services will include time and place of the actual funeral service, placing of a newspaper notice, managing financial concerns, grief counselling, the details of the funeral service in the organization's chapel or a place designated by the client, and memorials at the place of burial or cremation.

National Standards for the funeral industry are promoted by the Australian Funeral Directors Association (AFDA www.afda.org.au), which has members in every Australian state. Standards for industry practice are based on occupational health and safety standards, public health, legal and community standards (afda.org.au), and member firms are required to work to these standards.

The various activities of a funeral service employee include:

- Consultations with a range of stakeholders;
- Liaison with relevant religious, commercial and community groups;
- Organization of financial, legal and public relations tasks;
- Assistance with grief counselling;
- Provision of a variety of tangible services.

The action words in this list (consult, liaise, assist, provide) emphasize communication, collaboration and an ability to act appropriately according to the sensitive requirements of the job. Broadly these competencies are grouped under the Mayer key competencies, Communication is an integral part of the service offered by this industry. It is a key component of the industry where often return business will come about because of the impressions created by the service delivery at a funeral. 'You will be aware of what's done and how it is done' (trainer).

The training

The State Training Manager who was interviewed for this study facilitates training for a collection of funeral companies grouped under one parent organization. The National Training Manager has developed 30 training modules for Australia-wide use for participating companies. This development was achieved with input from other state training managers, trainers and other industry and/or training personnel with input from the South Australian Training Manager (the research informant). The Australian Funeral Directors Association has also been involved in the development process. These modules are formatted as industry competencies with all 30 of the modules currently mapped to the Funeral Services Training Package due for completion by late 2001, and therefore not in use at the time this research was conducted. Once the National Quality Training Council endorses the Funeral Services Training Package, staff in the industry will have accreditation at certificate level.

The trainer in this case is qualified across the tertiary (Bachelor of Human Resource Development), workplace training (Workplace Assessor & Trainer Certificate IV) and industry sectors, having been involved in training and development for 20 years: Hospitality (9 years), Manufacturing (5), Retail (4), Funerals (1). This trainer was able to bring detailed

knowledge of the development of competency-based training (CBT) in industry to the review process underway in the training and development for the funeral industry. This transfer of knowledge and understandings was valuable in the move to training packages for an industry with little existing knowledge of the process.

Two processes are evident as this company aligns its industry training to the standards set under the National Training Framework. Maintaining industry relevance (customizing modules) while simultaneously complying with national models is important for this industry. An example of customization exists, for instance with the retail merchandising package. Here the principles of merchandising needed to dovetail with specific industry retailing requirements. But recognition of national standards is equally important, 'standards and benchmarking raises the bar for our industry' (trainer). Occupational Health & Safety standards were cited as one area where compliance with national standards was important, particularly in relation to infectious disease control.

Industry training issues

Current training and development issues identified by this trainer include the tension between ongoing training and fulfilling the work requirements. Day to day work patterns cannot be known in advance, and because of this a training plan is not easy to develop and maintain, i.e. staff need to work when the job is there and training days must fit around the immediacy of this.

There is a strong commitment for accreditation of all staff in this group of participating companies. The national training manager is keen for staff to obtain 100% of available modules through training or RPL within 12 to 18 months of being with the company. Smaller operators who are not part of a company training and development structure do not have infrastructure to provide training in this way and there is nothing available outside the industry. Industry competitiveness cannot make training available to all companies except through specified affiliations.

National standards are important. Historically the industry has been characterized by master trades people who passed skills on to the next generation. The risk here is that of passing on 'bad operational practices' (trainer). Competency standards provide necessary benchmarks for industry standards and quality. And in a competitive environment 'the industry has to get it right first off, has to provide quality' (trainer).

2 *A fast food franchise*

The industry

This site was member of a fast food chain offering a relatively low cost product to customers in an identifiable environment and where efficient service is provided. The job activities for this franchised group range from food preparation, customer service and service delivery in the restaurant, to facilities and staffing management and marketing. There is a clear career path for workers in this industry.

The maintenance of a quality product with quality service is the goal of the organization. Employees in the industry are initially recruited to work at a production level in the restaurant but the organization offers both training and development and facilitates career path options for all staff. Their international website indicates that the 'work environment emphasizes coaching as a basis for learning and growth'. Strong teamwork is a stated aim of the organization, coupled with a focus upon developing entrepreneurial skills to promote the

success of the company. In-house training and development is designed to build the skills for effective 'Team Members' (capitalization and terminology attributed to the company).

The training

This fast food chain has twenty-five sites in the South Australia. It has operated as a registered training organization for two years. In this case the New South Wales Training Manager matched industry (and company) specific materials to existing national competencies for the following certificates from the National Training Framework;

Certificate II & III & III	Retail Operations
Certificate IV	Retail Management
Diploma	Retail Management
Certificate IV	First Line Management (partially delivered in SA)

Currently this business sector has one trainer who facilitates the industry training in South Australia. The trainer in this case is qualified across the tertiary (Bachelor of Arts in Industrial Relations & Graduate Certificate in Training and Development), workplace training (Workplace Assessor & Trainer Certificate IV) and has industry sector experience (nine years) by working up through the organization. This trainer's employment pathway follows a stated company policy of guiding workers through training and up-skilling employees 'on the floor'. Four on-site employees are currently being trained in the Workplace Assessor & Trainer Certificate IV to broaden the possibilities for on-the–job training and assessment. The trainer attends Australian Qualification Training Framework (AQTF) professional development workshops to become familiar with and then implement training and assessment materials from the AQTF Tool Kit. These were reported as 'very useful', and, coupled with the information on the ANTA website have enabled this trainer to maintain currency.

Industry training issues

The industry has an identifiable product and style and the need to customize training modules with the Training Package modules has been important. This has been achieved through intra-state cooperation. A need to broaden the expertise of other workers to facilitate on-the-job assessment requirement is currently being facilitated with a further on-site employees being trained as workplace assessors. It was noted that while the training organization has some contact with the ITAB, the relationship is not as strong as earlier in their development as an RTO.

3 The wine industry

The industry

The third study looks at training for wine industry employees offered by an outer metropolitan employment and training organization. Trainees are either eligible under the intensive assistance for long-term unemployed or the youth program. The industry trainer negotiates specific units from the Food Processing and Horticulture Industry Training Packages according to industry needs. Seasonal needs in the wine industry will determine the need for workers and the employment placement and training programs in the training organization respond to this demand. The job-matching role of the organization is similarly activated by such changes. Full traineeships are not viable programs for this organization, as it is not possible for some modules to be workplace assessed. However units, once completed can be accrued for accreditation according to the requirements of the specific training package.

The training

National Training Packages from the following industry groups are available through the employment and training organization: Administration, Assessment and workplace training, Hospitality industry, Retail and Food processing and Horticulture. Certificates in Personnel management training, Preparatory education, Information technology, Communication and the Training Program in Engineering Modules are also offered. The Training Package units relevant to the training delivered by the trainer interviewed for the case study are, Certificates I II & III in Food processing (Wine) and Certificates I, II & III I Horticulture (Production).

This trainer had broad industry experience in human resources and training development, with twenty-five years in human resources in the public sector. Accredited as a workplace trainer and assessor (Workplace Assessor & Trainer Certificate IV), the trainer is currently registered with the National Wine Industry as an assessor and is involved in the industry assessment network. The trainer's role in the employment and training organization is various, including being the Occupational Health & Safety Co-coordinator, the Job Matching officer (interviewing job seekers and employers) and trainer in the viticulture course (involving a range of modules i.e. Cellar Operations). The trainer also recently completed a short course in anger management to facilitate training and development needs of jobseekers in the program.

Industry training issues

Industry knowledge is critical for a trainer given the range of variables (i.e. land fall and weather conditions) encouraging localized and regional response to the work. An effective teaching and learning environment is important to foster good training practice; trainers require an approach to teaching and a philosophy of teaching in training to encourage an engaged learner and pro-active worker. The flexibility to 'mix and match modules' (trainer) from Training Package Levels II and III is useful. This adds to the customization of training for individuals' work and training needs. Training needs to impart understandings about why work tasks are performed in a certain way, 'people have to have an understanding of why they're doing something' (trainer). There does need to be an active relationship between employers in the industry and trainers for the industry. Some industry groups will want 'training to their own standards' (trainer) while the trainer is cognizant of national standards and individual industry practices. It was noted that in the industry employers ask for workers from this training group because they know the standard of training employed by this trainer.

4 Office management and business training

The industry

This case centres upon a training organization offering employment and training services in the central business district of Adelaide. As an employment and training organization it offers a range of training programs for both trainees under contract to complete specific industry training requirements, and Work for the Dole clients who can achieve units from training package modules to build a qualification. The training modules available in the training organization are;

Certificate II & III	Business (Office administration)
Certificate II & III	Information technology
Certificate II	Hospitality (Commercial cookery)
Certificate II	Hospitality (Operations)
Certificate III	Aged care, and a Traineeship in Horticulture

The training

In this case a Traineeship Coordinator and Trainer were interviewed. Their qualifications were gained from the university sector (Bachelor in Vocational Education & Diploma in Assessment and Training Systems), and the industry-training sector (Workplace Assessor & Trainer Certificate IV). Both informants currently attend AQTF professional development workshops to become familiar with, and then implement, training and assessment materials from the AQTF Tool Kit (both agreeing that this ANTA program was timely but needed when the packages were first introduced). Broader networking was part of current work for trainer and training coordinator, the trainer being involved as member of the assessor network. The training organization also conducts internal audits of trainers' skills and qualifications (for those without the AWT Cert IV), to ascertain their delivery standards.

Industry training issues

A number of industry wide training issues were raised by the training coordinator and trainer interviewed for this case. Fundamental to the discussion were issues relating to the changeover process, of moving from one system to another and the complexities implicit in this.

Training packages were said to offer 'lots of possibilities' (trainer). The need to balance the teaching of theory and practice in packages required determining appropriate on and off the job training incidents. It was seen as more cost effective for training to occur on the work-site although the possibilities for dynamic teaching and learning experiences happens in the classroom. 'The real work situation offers the maximum learning possibility however off-the-job training offers the possibility of having trainees bounce ideas off one another – but it is not the most financial way of doing things' (trainer). Appropriate pedagogies for the workplace are still evolving with 'a need to understand the idea of informal learning versus formal learning' (trainer). And the mix of on and off the job training does need to be determined i.e. Is level 1&II all on the job, and, is it appropriate for level III trainees to be offered one day of training a week off the job?

These trainers considered that credit transfer needed to be organized between particular packages. Their example was in retail operations, 'Sometimes the difference in orientation is the work context; between banking and retail for instance because the banking industry's rationale is to build a customer base and in retail it is to sell a product. They recognized the politics behind the development of individual training packages 'because each industry through the ITAB has an interest in their package being utilized' (trainers).

Another issue cited in the data was that of time frames for training package unit completions, 'we have found that even though a unit of competency is not supposed to have nominal hours funding doesn't happen without the dreaded nominal hours, so there has always been a conflict with training packages and nominal hours' (trainer). A further concern was that by enabling recognition of prior learning or of current competencies (RPL & RCC)) adequate coverage of the basics may not have occurred, 'you've got to be prepared to be flexible with every single trainee that goes through a particular traineeship' (trainer)

Strong consideration was given to the key competencies. These trainers would like to see a restructuring of the training package documents with the underpinning evidence at the top of the package rather than in the foreground. 'This focus would provide a better flow of information, the last thing that trainers look are the key competencies and they don't understand that they mean the standards and conditions' (trainers) Additional professional

development is required, they contest 'to update and introduce to the idea of the key competencies and their rationale…the common language for trainers is not there' (trainers).

The issue of the trainer training was discussed. Effective teaching methodologies are vital in the delivery of quality training with 'an interactive approach being a better way of connecting to trainee learning' (trainer). This organization employed trainers on the basis their philosophy of teaching and learning evidenced in training episodes. The need for rigor in trainer training was cited as key to reaching and maintaining standards in training delivery. Another area for discussion was the VET in schools programs where teaching methodology did not cater for a transfer to/for the workplace context.

The training coordinator was concerned about the effective mentoring of on-the-job trainees, and didn't always see appropriate on-site practices.

> I'll be honest here, on-the -job traineeships are much more profitable than off-the-job, much much more, because of the lack of contact, so if you have an RTO who doesn't recognize or doesn't keep in contact with that trainee and they're falling behind and that sort of thing, you can lose them in that scenario because they maybe don't even understand the question, and that's all it was. (Training coordinator)

Literacy and numeracy support issues become an area of concern that may sit alongside unsuitable or inappropriate teaching and learning methods.

Time and effort were cited as an essential consideration as employers thought about taking on a trainee. It was agreed that on-the-job traineeships were more profitable than off-the-job training. Therefore RTO's need to spend the time maintaining contact with the trainee and workplace need to adopt a serious response to their mentoring of trainees. If this fact isn't recognized 'you can lose them in that scenario' (trainer). A further suggestion indicated the structuring of compliance for those accepting on-the-job trainees, where 'they actually have to demonstrate that they can mentor a trainee on-the-job or coach them on-the-job' (traineeship coordinator). This was presented as an advocacy need, to be addressed by ITAB's. 'A one day workshop before taking on a trainee, providing some good solid guidelines for employers and meet the AQF standards for on-the job training – there seem to be too many gaps. There is richness in this training context that does not translate to the on-the-job context' (traineeship coordinator). Networking is critical - 'networking with employers massages the relationship, and I see my role as providing feedback as to who is doing really well and supporting what the training framework is all about' (traineeship coordinator).

5 *The seafood industry.*

The industry

The seafood industry in South Australia is growing rapidly and contributing to the State's economy as it expands its overseas and national markets. The industry is developing both processing and distribution of fish product, as well as supporting new developments in aquaculture. The jobs available in this industry reflect the expansion of the industry. They involve knowledge, skills and understandings in the following areas: seafood handling, animal husbandry, water dynamics and engineering, environmental control, climate predictions, construction using natural and man made materials, coxswain, marine engine driver and commercial vessel skipper, and budgeting and business management. Training for the industry is available through training providers, both private Registered Training Organizations (RTO's) and with Technical and Further Education Institutes (TAFE). These training

providers can deliver accredited training to the level of an Advanced Diploma, with University courses providing undergraduate and post-graduate qualifications.

The training

The provider discussed in this case offers national qualifications for the Metal and Engineering Industry (Certificate III), the Seafood Industry (Certificate I, II, III & IV), with courses in Aquaculture, Marine Engineering & Operations, Occupational Diving and Safe Work in Confined Spaces. The organization is planning to offer Diploma level courses in the future. The organization currently has over one hundred trainees in South Australia; 'we've got more trainees in the seafood industry than anywhere else in Australia' (trainer). Trainees are put on a twelve-month traineeship; they study units at Certificate II level in the Seafood Industry. Trainees at this level 'come straight off the street knowing nothing about Aquaculture' (trainer).

The training coordinator interviewed for the study had previously worked (20 years) as a trainer in one of the defence services, and also holds the Assessment and Workplace Training Certificate IV. The training coordinator has worked in collaboration with ANTA and the Regency Institute of TAFE's Framing The Future Project and provided advice to industry training groups interstate.

Industry training issues

The organization has a strong belief in industry-based training and works with industry employers to provide a quality service. Flexibility under the Seafood Training Package is important and there has been a need to 'massage' (trainer) the training packages since their introduction. Trainers working in collaboration is important to promote inter-industry understandings and to maintain the importance of the industry training focus.

School based traineeships have been introduced into fifteen schools in the state by this training organization. The demand for school-based traineeships, coupled with post-school traineeships has 'gone through the roof, I can't keep up with it' (trainer).

Trainees visited for this case study were concerned about the workplace - training interface and felt inadequately prepared for the training component of their work. For them the issue was the need to have their training needs explained and covered. These trainees saw value in the work-study link and were mentored by a trained (to Certificate III level) co-worker.

Culture(s) of training

The next section of the report looks at the data from the five industries under three headings; **teaching and learning** in training, **literacy and numeracy** practices in training and **assessment** practices in training. Of interest in this research is how VET trainers talk about these aspects of training. How do trainer talk about key components of the teaching and learning cycle? What understandings do trainers bring to the terms literacy and numeracy, and how do they incorporate these understandings into their training? What assessment practices are utilized in training?

The data from all informants has been conflated to reveal the shared beliefs and identifiable ways of working which cut across the five industry groups. The purpose is to add these voices to the body of research that is exploring ways of working within the national training agenda. By bringing their voices together, their mutual concerns and the common threads can be examined.

Teaching & learning

Learning in training

Trainers in the study suggest that learning is predicated upon change in skill, knowledge and understandings for individuals and groups and is continues throughout a working life;

> Change in knowledge, skill or attitude and is demonstrated by behaviour
>
> Learning is life-long.

The trainers' voices point to an understanding of learning as taking place through learner participation in specific kinds of social practices. Here the data reflects an understanding of learning to mirror the theories of Stephen Billett, where workplace learning is conceptualized 'as being the product of participation in social practice through engagement in the activities and access to support' (Billett 2001: 85). Trainers represent their ideas of learning in this way:

> Learning is – enhancement of skills and knowledge, developing existing skills, competence and knowledge to address current work context
>
> Learning can be achieved in a collaborative way, learning is the ability to listen, observe and react
>
> Learning an interactive process
>
> People learn by what has happened to them, things they've heard, whether they want to or not

Learning, Billett suggests, through 'guided engagement in everyday work activity constitutes a pedagogic practice that draws upon a complex of contributions.' (Billett, 2001:93), The 'complex contributions' are participation in work activities, expert co-workers providing direct guidance, novice and mentor interpersonal interactions and the new and established workers' interactions in the workplace setting, both social and physical. Learning in the workplace is afforded through the opportunities provided to the trainee in the specific workplace: the kinds of tasks individuals are permitted to engage in and the guidance and understandings provided for workplace learning. Trainer guidance and understanding is made reference to in these comments from the data:

> Understanding, empathy and the ability to learn are important qualities for employees/trainees.

The development of a trusting student/teacher relationship is important to strengthen the teaching and learning experience. Strong interactions are important, an exhausting process.

There is a need for the teacher/trainer to have cultural understanding and to be able to talk appropriately with the range of trainees.

Training Methods

The importance of the active role of the teacher/facilitator was evident throughout the data, with the practice of mentoring trainees though their learning.

The expert 'other' taking trainees through their training is apparent:

I decide how to approach the specific teaching and then measure them through it.

I give them advice as I observe how they are doing the activity.

I model the activity

Watch me, this is an example of what we are doing

Trainers acknowledge group and individual learning needs in their facilitation of training. Firstly in the range of experience and expertise in a group:

Shift Supervisors are like sponges, they want to know things, they like to explore different things

Trainees can talk from their own experiences in specific modules. One shift supervisor had been involved in a robbery so she ran through what had happened to her in the Safety and Security Module and the Emergency Module

And secondly, allowing time for the different learning rates:

Slower students I ask to spend ten minutes or so after class, part of my role is to determine who has got deficiencies in certain areas so you can address them.

Trainers recognize that understanding is 'transparent' if the trainees ask questions and the teaching/learning process becomes interactive:

I have a sense that the understanding is not there if the questions are not being asked

People have to have an understanding of why they're doing something.

Practical & theoretical skills development

The data indicates that while AQF levels I and II demanded the immediacy of the work place as the primary site for learning, off site training suited some training units:

Would like the theoretical input as hard to do that thinking while on the job - need to learn off job and then apply to work context

It's OK for us to direct that somebody do something, but it makes it far more appealing if you explain the reason why, why you're pruning the vine that way, why did you leave that and not that

The practical hands on experience is critical and is important to build sound vocational skills although it was agreed that the facilitation of on and off the job learning episodes was necessary in the delivery of training:

There is plenty of hands on stuff.

Learning achieved by doing.

Directed learning can build confidence

In fact learning on the job is the only way to learn many workplace skills:

> For example we do a 'five senses' approach to a product in the Shift Supervisor class on Product Quality, we smell it, taste it, hear it

However recognition of the demands at AQF level III runs through the data indicating the need for trainees to take a more independent approach to their learning and including a stronger theoretical framework and with more planning of course work for students:

> Trainees have to structure things more for themselves, training plans for example

The NTF offers a tiered approach to training. The consistent and accessible set of qualifications through the Australian Qualifications Framework was acknowledged.

> VET can be a stepping-stone to University

Quality in training

A key aim of the National Training Framework is quality training. The structure for this is contained within the Australian Quality Training Framework. The AQTF has two sets of standards, those for Registered Training Organizations and those for State and Territory Registering and Course Accrediting Bodies (AQTF Evidence Guide for RTO's and Auditor's 2001).

Standards for RTO's apply in relation to systems for quality training and assessment, including staff competence, designated learning and assessment strategies, effective financial and administrative management and compliance within a jurisdiction with legislative and regulatory requirements.

The issue of standards was recurrent in the data. Certainly the data showed a need to meet AQTF standards, however there was an industry requirement for productivity. It was presented by one industry as needing to perform the work tasks to a satisfactory standard every time.

> There are no second chances in the work of this industry, customer satisfaction to build our business is mostly word of mouth

Another indicated that the need to network with employers was important to know their standards and to train accordingly;

> Employers will ask for workers because they know the standard that I train to.

The need for training to provide a qualified and immediate workforce was also cited:

> Industry is spreading in the state so having a mobile and trained workforce is becoming increasingly important.

To rethink the notion of nominal hours for Training Package delivery was a concern when considering quality training outcomes:

> One of my big issues is time-frames, how much time I actually have with my participants is one of the main factors, even though a unit of competency in not supposed to have nominal hour, but we have found that funding doesn't happen without the dreaded nominal hours, so there's always been that conflict with Training Packages and curriculum and, as a result of that nominal hours is still here and we still use them.

Location of training

The theme of learning by doing was recurrent in the data. Learning the job on-the-job and learning to do a job by acquiring practical hands on experience is an essential industry-training requirement. Moreover training on the job allows exposure to the work context that is only mediated by the work mentor, so ensuring realistic learning episodes.

Two industry trainers talked about their involvement in the VET in schools programs. Industry based assessments are a barrier for the VET in schools programs and here auspicing arrangements enabled the facilitation of assessment under the AQF:

> as a qualified assessor I do the assessments. School teachers don't often have the industry experience – 5 years recent industry experience – to keep up with the needs in the Training Packages.

Resources to support training delivery

All case study sites had developed materials to support their training. These were specific to industry tasks and customized for core modules.

Literacy and numeracy

Understandings of literacy

Recent theory has framed literacy in terms of the social, and literacy as a social practice (Gee 1992). The literate and numerate capabilities of the individual becomes contingent upon their social history and current social (including work) groupings. Workplace literacy and numeracy practices can be thought of as 'rich and meaningful formulations (Castleton 1999:22) on any worksite, with the sharing of knowledge and skills, rather than individual performance, being the way work is achieved.

The data exposes an understanding of literacy functioning as a continuum, from decoding text to multiple and complex semantic capacities. In the first instance a traditional idea of literacy is cited. Literacy is presented as being able to read and write with basic skill.

> Literacy is basically, or how I understand it from the experience that I have had is reading and writing skills.
>
> Literacy; in the 'true' context of being able to read and write
>
> Literacy relates to reading and writing skills

Trainers in two industries stress spelling competence and legibility of script as important (funerals & office management), however the trainers in seafood and viticulture training at levels I and II did not insist upon accuracy although they considered that literal meaning needed to be clear.

> Spelling doesn't really worry me provided the word is phonetic

Literacy was also represented as the ability to understand written communication, and to interpret and transfer that information.

> It is the ability to understand written instructions and to act in the manner intended by those instructions

Effective communication skills, with a strong emphasis on speaking and listening competence were equally valued as important literate abilities. And it was mentioned that,

> ...training enhances and builds upon these skills

> Regarding Certificate III - managers and shift supervisors need to be able to communicate to staff what is needed for a particular shift

More generic skills, including those of empathy, effective people skills, interpersonal and communication skills were grouped under a discussion of literacy and many of these 'meta' skills are described under the heading 'critical literacy'.

Critical thinking skills

Training was conceptualized in the data as incorporating critical thinking skills.

> We need employees who can ask the critical questions 'Why am I doing it, how am I doing it, when should I do it?'

> Critical thinking skills are to be encouraged throughout our training, not spelt out in the packages but the fact that there is a lot of gray in the packages and not so much black and white means that there is opportunity for freedom of expression. And I am willing to listen and learn, it is a two-way thing.

The ability to apply problem-solving skills (including interpersonal and communication skills) in the work context becomes important in the retail operations, retail management units.

> Our trainees need to be able to empathize with customers and to give them full attention when needing to come to a resolution re complaints, they are required to be able to think on their feet

> Our selection process for team managers looks at Team Morale …we assess them on fundamental skills and their customer focus. There is also one for management utilizing coaching and support, belief in people, business reasoning etc. The procedures are set out to indicate if they are ready or need assistance

Understandings of numeracy

Numeracy equates with 'choosing and using mathematical ideas to understand, to explain and to solve' and is 'involved at every level of mathematical sophistication' (Willis 1990:7). Number skills and industry specific applications were cited in the data. Understanding 'the numerical side of things' (trainer) is very important, this involves the skills of addition, subtraction, division and multiplication at a basic level (cited by all industry groups).

Trainers in the study all indicated the application of numerate abilities in their industry training:

> Understanding the concept of addition, percentages (GST) and knowing the impact of explaining that to the family of the deceased. (Trainer - Funerals)

> Basic numerical order, estimates need to be understood. We spread the jobs around, like water quality, temperature readings. (Mentor - Aquaculture)

> Understanding and applying three level fee structure, professional, product and incidental. (Trainer - Retail operations)

> I question a lot of the arithmetical stuff because of the accuracy that is required working in the winery for instance putting additives into wines or mixing chemicals in the vineyards, you have to be spot on! (Trainer - Viticulture).

This data provides evidence of the application of numerate abilities to specific tasks within to each industry, as well as broader understandings that are needed in the workplace.

Literacy and numeracy in Training Packages

The incorporation of English language, literacy and numeracy competencies into competency standards means that the literacy and numeracy skills that underpin both vocational and more generalist competencies are provided in the context of industry training. Trainers in this study made the following observations about literacy and numeracy competencies in Industry Training Packages.

Trainers reported that there was not a great deal of difference in reading and writing requirements at Certificate levels I and II. However Certificate level III placed greater reading and writing demands upon the learner. Oral communication, speaking and listening skills, were cited as the important skill for Certificate levels I and II.

Certificate III presented the need for learners to plan for study and work. Communication with both industry clients and colleagues were also cited as critical:

> Managers and shift supervisors need to be able to communicate to staff what is needed for a particular shift
>
> Need to be able to empathize with customers and to give them full attention when needing to come to a resolution re complaints.

Critical thinking skills were also emphasized:

> The strong need is for workers to be able to think on their feet

Numeracy skills are contextualized as part of workplace practice:

> There is a module called mathematical concepts in the wine industry [...] I have developed a fairly easy method of training people in that area with blackboard exercises. If there are problems I need adjust my teaching strategy
>
> In Certificate II trainees learn to calculate the shelf life of dough and to display the appropriate information re shelf life. Often [they] need assistance with %, and we will highlight areas where we need to work with them.

And for Certificate II, the need is to:

> Count the cash on a twice-daily basis and to count the stock at the end of the week to work out what costs for sales are. They use numbers for ordering. Percentage is a critical skill as the cost of sales is calculated as a percentage.

In Certificate III there is a forecasting module:

> ...for those in management where trainees would need to work out what how sales are trending. Calculations built into the management module.

ESL

English as a second language issues varied across the sites. One case reported no ESL 'component' while another indicated that second language was not an issue as those with a second language were fluent in English. A third trained according to the language needs of the learners:

> Often workers will be fluent in their own language but not be concise in an English translation. We sometimes use a translator to support learning for these trainees. Written expectations with these trainees is problematic. They may be able communicators using speaking and listening skills but when it comes to writing complex documents they are at a loss. Grammar structures are one problem area. Using an interpreter can be useful, someone who will translate from their home language. Using written English skills in their working lives may be another issue.

For one industry cultural knowledge was cited as important in the business of the organization, and it was advantageous for staff to have a second language in interactions with the client base.

Technical language

The data showed an acknowledgement of technical language or industry specific language by trainers;

> Technical language part of the work landscape

Trainers understood that an explanation of jargon was part of their teaching responsibilities

> Terms often need to be explained

Another area for vigilance in the use of language was that of resource development and one trainer noted 'we encourage transparency here'.

The language of instruction was mentioned in the data, with one trainer suggesting that;

> ...trainees can at times do the task but do not understand the way the language of instruction

The suggestion here is that the language specific to teaching and learning is a technical language and that trainers need an awareness of the language of training.

The National Reporting System

The National Reporting System (NRS, ANTA 1994) is the tool available for vocational educators and trainers to ascertain the language, literacy and numeracy levels of students and trainees in VET programs. The data in this study suggests that trainers were not familiar with this reporting tool.

Assessment

Location

The assessment of Training Package units is the task of qualified workplace assessors, those who have completed Certificate IV in Assessment and Workplace Training. Units of competence are assessed against nationally endorsed industry standards in the workplace. On-the-job assessments are key to the National Training Framework training agenda. In fact the delivery of training using Training Packages is not prescriptive, however the specified industry standards must be met for competency to be achieved.

Data from this study indicates that assessments are on going and developed to capture trainee skill acquisition in their work context. This indicated that the mentoring process assumed by trainers under the NTF was key in this training climate.

> Most assessment is on-the-job. We observe and ask questions, we need to see if they can go back to the store and put their learning into practice, to see if they can make the product properly, assemble the ingredients following all the standards. Can they serve a customer properly following all the service standards?

For some units however off-the-job assessments matched the specific teaching and learning cycle.

> We spend four weeks a year off the job and they're assessed off the job.

Recognition for prior learning (RPL) was built into the assessment procedures, however trainers suggested that it was essential;

> ..to know if the competency is there, evidence is important.

Methodology

The predominant method of assessing competencies involved task observation using a dialogic approach to test knowledge and understandings. The data also indicated a range of other methods in use to assess achievements in learning such as observation (i.e. of the method of executing a particular procedure either in the classroom or in the work context), role-play, written assessment and discussion of case studies. Peer assessment was also an assessment method used, for instance in a customer service module which, when complete, is assessed by the work team to identify gaps in procedures.

Standards

Networking within the industry was cited as important to:

> ...get together and discuss problems with assessment processes, individual problems and how individual assessors react to different situations.

This process is facilitated by trainer involvement in Assessor Networks, which aim to meet the RTO assessment standard (8.1) of the AQTF. AQTF reporting standards were also cited:

> ...we have to adhere to ten different reporting standards i.e. for trainer standards 2,3 & 7 are very important re administration requirements

Endorsement of the AQF was evident as:

> Trainees are looking for the accreditation to give them a national ticket.

Discussion of the Data

I now want to use the case study data taken from the conversations in each of the five industry training groups and to consider what this means in and for Australian industry training. What does their 'training talk' tell us about the present vocational education and training climate?

It is useful to draw upon sociological theory to think about the understandings taken from this research data. The work of Bourdieu allows a way of thinking about the interactions between social and economic structures and the actions or practices of agents working within such systems. In his employment of the terms 'field' and 'habitus' (in Grenfell & James 1998), socio-political and/or economic space are named as a field, with the actions and discursive practices of individual and groups operating in this field identified as habitus. Agents acting within one structure will operate according to a set of dispositions (idiosyncratic and generalist) built by their individual experiences gathered from multiple structures, including educational and workplace environments.

In this study at least two categories of field are evident, industry sites and the vocational education and training sector (grouped as described earlier in this paper). The agents, who enact the training agenda formulated in the NTF, are the trainers and training coordinators. Their ways of thinking and acting (habitus) as trainers and coordinators become key in the development of a quality industry-training sector. The data from this study is therefore useful in bringing an understanding of trainers' work at this time in the evolution of the NTF and will, I believe, provide a base for further refinement of VET.

VET trainers as agents of change

VET trainers work in an evolving national training system and are themselves agents active in the construction (structuring) of their industry-training field. In their specific context, trainers in this study work to satisfy the training needs of workers in their industry, while accommodating the national training agenda. Evidence of this for instance, can be seen in the customization of units of training mapped against national Training Packages, and the demands upon trainers as they work to the specific requirements of task, time and place in their industry. So trainers will achieve quality-training outcomes by both working according to described orthodoxies (i.e. AQTF standards and procedures) and principles, and by simultaneously acknowledging the specificity of their localized industry needs and working with these as well. Trainers have the dual task of reproducing what is expected structurally, and of effecting transformations to practices and procedures as they see appropriate to their specific training site and industry.

There is a growing literature (Waterhouse et al. 1999; Harris et al. 2000; Simons 2001) concerning the position of the VET trainer at the current time. VET trainers 'are both subject to the dramatic changes that have impacted on the Australian workforce in the last decade, while also being expected to support and facilitate the change process' (Waterhouse et al. 1999:1). Trainers work in a variety of workplaces as is evidenced by the five cases in this report. And the VET workforce is 'constructed around the competence needed to perform the tasks of the organization that could vary from classroom-based delivery of training programs through to supporting the delivery of qualifications in workforce environments or wholly through the use of flexible delivery modes.' (Harris et al. 2001) So while there is value placed upon trainers' ways of working according to the rules assumptions and beliefs of the field, there is another level operating: that of trainers both accommodating change and acting as change agents.

Change transforms, and Bourdieu considers that such a transformation of practice in education occurs with a break within the cycle of reproducing the expected. The argument continues that within an educational context there does need to be the possibility for reflection upon their 'habituated' practices by agents within the organization. This break is predicated upon the idea of agents thinking/analyzing the legitimated structures of their organization and effecting change if change is to be productive. Bourdieu's work presents analysis of current structures (ways of working) as moving beyond current orthodoxies, (Bourdieu in Grenfell & James 1998:20). Legitimated ways of working become 'symbolic capital' (after Bourdieu) capable of being at once both helpful and unhelpful for individual agents (and in this study trainers) in the VET environment. In order to shift the unhelpful the adoption of a position of reflective practice is suggested 'to rethink our everyday assumptions about educational practice' (Grenfell & James 1998:28).

Professional development in vocational training

In education reflexivity allows transformation rather than reproduction (Fowler 2000). The reflections of industry trainers in this study provide evidence of the reflective practitioner negotiating industry knowledge with VET structures to develop a learning environment to accommodate the national training agenda and to facilitate quality industry training. In this analysis agents are not positioned as uncritically accepting established structures, but as agents active in the construction of (structuring) their field. The possibilities for a disciplined reflexivity to enable a trainer to think about a spectrum of issues, from more effective student learning to support of policy and procedural debates, are partly a function of access to professional or staff development.

Professional development is trainer education. For trainers/educators to support and facilitate the leviathan that is change in the area of workplace practice and workplace training, professional development opportunities must be ongoing and address the range of topics that encourage deeper understandings of teaching and learning principles. Through this education, agents involved in workplace training are afforded both new skills and understandings and the space for reflections upon, and sharing of, current 'best practice'.

The interest in this study has been to document the current work of a group of industry trainers in their teaching and facilitation roles. Further it purports to offer suggestions to strengthen work place training practices under the current framework. As the NTF provides the broad structure for the workplace, individual training sites 'are structured by historical, cultural and situational factors and that this structuring influences how and what is taught.' (Billett 2001:85). Rather than training being an overlay to the everyday work site practices as is implicit in the delivery of Training Packages (the competencies to be achieved are specified, not the method of delivery), a pedagogy of teaching and learning in the workplace 'could assist effective workplace learning' (Billett 2001:91). Complex participatory practices constitute workplace learning. The specificity of an industry site in relation to learning 'the job' and mobilizing an awareness of the more generalist skills important in changing economic times are equally to be valued.

Earlier research (Trenerry 2001; Wyse & Brewer 2000) has suggested that an awareness of the language of training (meta-language) is appropriate for trainers and trainees as they engage in the process of teaching and learning on the worksite and in the training room. If the 'cultural capital' of the trainer (and trainee) does not include a discourse of teaching and learning, it may be that training outcomes are not always realized. One example of this is a need for trained assessors to be responsive the complex and sophisticated language, literacy and

numeracy issues involved in the process of assessment (Wyse & Brewer 2000). Falk & Miller (2001) identify gaps in the literature and suggest the need for further research to create an awareness of the roles of both basic literacy and numeracy skills, and embedded literacy and numeracy as integrated task competence in all facets of lifelong learning in and through VET. Falk and Miller also suggest incorporating these explicit competencies in student and staff learning courses.

Generic skills in/for trainers

To refocus upon generic skills, which are all about effective learning and learning for transfer (Cornford 2001), is a further need as a part of workplace pedagogical practice. There is currently a rethinking of the generic skills (conceptualized as Key Competencies in the Mayer Committee report of 1992) that underpin the learning of the units of competence (Kearns in Cornford 2001:142). Trainers in this study have indicated a gap in understandings about key competencies. Dawe's work suggesting the need to strengthen the existing key competencies by adding a learning competence or develop a broader more holistic set of generic skills required for the information based economy, is timely. 'This set of skills would also apply to lifelong learning, maintaining employability and creating a culture that supports learning, enterprise, innovation and creativity' (Dawe 2001:176). The AWT Review (Thompson & Chan Lee 2001) also recommends a consolidation and expansion of the generic competencies for workplace trainers and assessors.

Findings

The key findings emerge from this are that:

- As trainers respond to the National Training Framework they report on the strength of training located within industry sites;
- Engagement with the AQTF has enabled an understanding of Training Packages and their use as a framework for delivery, assessment and accreditation of industry training;
- There is a need to revisit the Key Competencies as critical underpinning skills for industry training;
- Workplace trainers place value on their ability to network with professional colleagues and industry partners as a way to enhance the delivery of quality training;
- Professional development opportunities are a necessary ingredient in the delivery of quality training;
- Literacy and numeracy skills enable the teaching and learning process in the workplace;
- Higher order literacy skills are important in a climate of lifelong learning;
- The central role of language in industry training has pedagogic implications for training workplace trainers.

Three key themes derive from this data and the findings - the themes of **location**, **time** and **knowledge practices** (including literate & numerate practices).

To link these themes a **pedagogy of the workplace** is required. Billett suggests that pedagogy of the workplace would 'integrate contributions of everyday activities and those provided everyday by expert co-workers' (Billett 2001:100). Workplace pedagogic practices balance the situational and the cultural for the industry worksite, including the aspirations of the individuals who constitute the workforce.

An integral part of a conscious pedagogic practice is the active acknowledgement of the positioning of **literacy and numeracy as vehicles for learning** in industry training. Workplace learning occurs in the complex social environment of the workplace, and this includes the literate/language (and numerate) interactions between trainer and trainee.

Industry trainers need to create effective teaching and learning environments for their trainees at a time of rapid global, technological and organizational change in work. To bring together the possibilities afforded through industry based training, is to balance the place of industry based training **(location)**, with productivity constraints **(time)** and professional development **(knowledge practices)** opportunities.

With regard to these three facets of the education and training needs of workplace trainers, the data suggests that:

Location

- The primary location of training in the workplace is well placed, however specific units of training may need to be delivered in an off-site setting.
- Work based professional support for people who mentor trainees (industry trainers, workplace employers and fellow workers) is a necessary condition for quality training.

- Networking within industry training groups, and with vocational training organizations, will promote ongoing good practice for assessment and teaching & learning practices.

Time

- Both time and funding should be made available to allow for guided professional development and reflective practice activities. This would promote the culture of inquiry important for the delivery of 'best practice' in a period of change for vocational education and training.
- The connection between the nominal hours suggested for the delivery of Training Package units and funding for delivery, be investigated. There is a need to recognize that all learners will have differing needs and that trainers are best able to judge the learning needs of their trainees.

Knowledge practices (linking with a pedagogy of the workplace)

Essential to effective teaching and learning is:

- an awareness of the essential place of literate and numerate practices
- a further development of generic competencies
- an acknowledgement that participatory practices constitute a pedagogy of the workplace.

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Appendix 1

Research Questions

Trainer's work

- Where do you train?
- How long have you worked as a trainer?
- What Training Package units and AQF qualifications are you training to?
- What qualifications relevant to your training work do you have?
- What professional development courses have been available to you since the introduction of Training Packages? Include both industry based and VET training activities.
- What training resources are available to support your training?
- What training support (inputs may be time, intellectual or other resources) is provided by industry management?

The role of literacy and numeracy (L&N) in training

- How do you understand the terms literacy/numeracy? (For example literacy is understood across a spectrum of functional skills - reading and writing, number skills- to the ability to communicate clearly and think clearly) – what do you think?
- Do workers in this industry use a specific technical language?
- Is there an ESL need amongst your trainees? If so, how is this need met?
- As L&N are now integrated into Training Packages what can you say about this?
- How do you identify literacy skill(s) in Training Packages?
- What literacy (and numeracy) skills are required of your trainees? (for example; reading, writing, speaking and listening, numeracy, learning strategies or other)

Assessment

- Are you a workplace assessor?
- Are you familiar with and do you use the National Reporting System as part of your assessment strategies?
- What language, literacy and numeracy skills/factors are relevant to the assessment process?

Workplace learning and the culture of training within the industry/RTO

- How do you define learning?
- Is the learning you facilitate collaborative, one to one or both?
- How do you decide upon the learning structure that you make available for your trainees?
- Are language, literacy and numeracy important components of workplace learning? And what is their role in workplace learning?
- Can you describe the environment for learning in this workplace in terms of attitudes, resources and professional development opportunities?
- What strategies do you use when a trainee is having difficulty with a part of their learning?

- Is it better to offer training on-site or off-site? What components of training would be best delivered off-site/on-site?
- Is communication amongst workers/trainers/managers valued on the work/training site?

Issues for training

Can you talk about training issues from the perspective of;

- What works well
- What needs to be changed or improved in relation to the training you deliver.
- What training possibilities exist using Training Packages under the National Training Framework
- Is there a down side to training as it is organized under the current training framework?

Teaching strategies in the delivery of workplace training

- What training are you currently delivering?
- List the Training Package units covered?
- Where and when does the delivery take place?
- Can you provide a profile of your trainees in terms of age range, gender distribution and previous training.
- The following areas of the training are of interest to this study and are covered in the two sheets provided to monitor four teaching sessions; Planning, industry knowledge, resources used, teaching techniques (group/individual, watching/doing/describing/theory input), student task evidence (written, spoken, demonstration) student feedback and assessment strategies. Please add further comments if you feel as though there is something missing from this list.
- Provide some examples of teaching/training that has been particularly successful?
- What were the indicators of success?
- What problems are you aware of in your teaching/training?

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